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U.S. Priority Document

# The United States of America



## The Commissioner of Patents and Trademarks

JCE57 U.S. PTO  
09/996967  
11/27/01

*Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.*

*Therefore, this*

### United States Patent

*Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.*

*If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.*

*If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.*

*J. Todd Johnson*

Commissioner of Patents and Trademarks

*Karna J. Cooper*

Attest



US006009214A

# United States Patent [19]

Suggs

[11] Patent Number: 6,009,214  
[45] Date of Patent: Dec. 28, 1999

## [54] MULTI-RESOLUTION COLOR CONTACT-TYPE IMAGE SENSING APPARATUS

- [75] Inventor: Bradley Suggs, Sunnyvale, Calif.  
[73] Assignee: Hewlett-Packard Company, Palo Alto, Calif.  
[21] Appl. No.: 08/959,062  
[22] Filed: Oct. 28, 1997  
[51] Int. Cl.<sup>6</sup> ..... G06K 7/00  
[52] U.S. Cl. .... 382/312; 348/302  
[58] Field of Search ..... 382/312; 358/483; 348/302, 315

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## [57] ABSTRACT

A multi-resolution color contact-type image sensing apparatus whereby a color image of an original can be obtained with a particular resolution, depending upon the size of the original image. A first array of photosensor segments with a base resolution is arranged with at least one other array of photosensor segments having a greater-than-base resolution. All such photosensor segments might aligned in a single linear array, with at least one portion of segments having a greater-than-base resolution. A resulting image with at least the base resolution could be created depending upon the size of the original in relation to the placement and width of the greater-than-base resolution segments. A plurality of linear arrays might also be used, with each successive array having a greater resolution than the previous array. Moreover, the arrays might be arranged in parallel with each successive array being narrower in width than the previous. Each linear array could be operated independently or in conjunction with the other linear arrays to produce multi-resolution resulting images. The resolution could be manually or automatically selected.

20 Claims, 3 Drawing Sheets

